Dec. 9, 1952 L. L. KUNDTZ ET AL 2,620,859

FOLDING CHAIR

Filed Aug. 16, 1950 2 SHEETS—SHEET 1

Fig. 1.

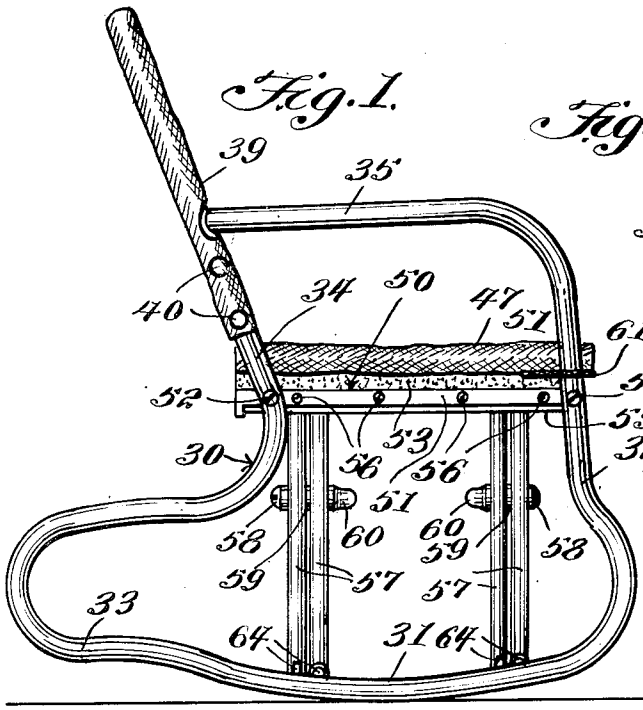


Fig. 3.

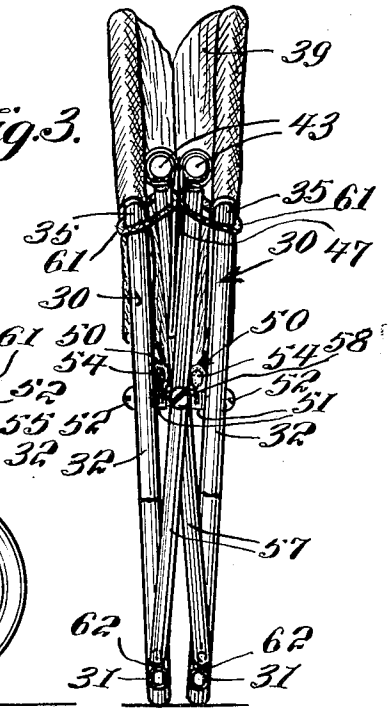


Fig. 2.

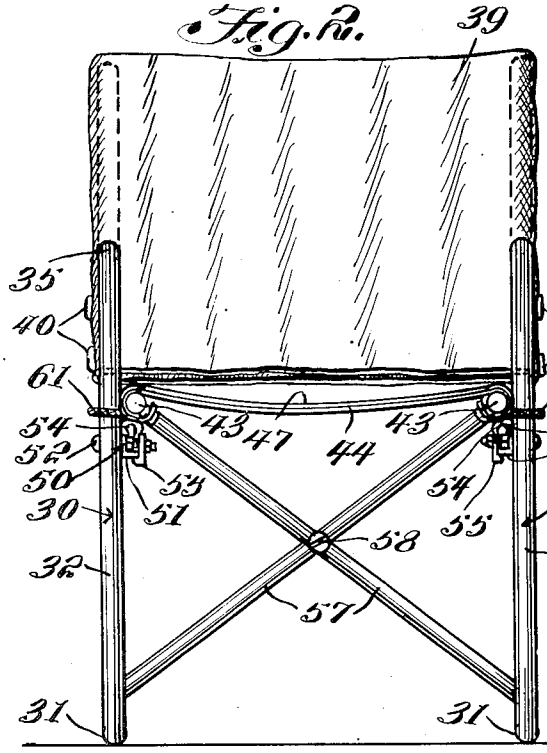


Fig. 4.

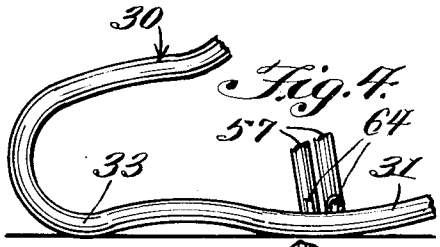
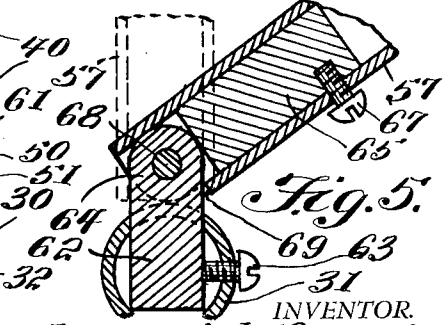


Fig. 5.



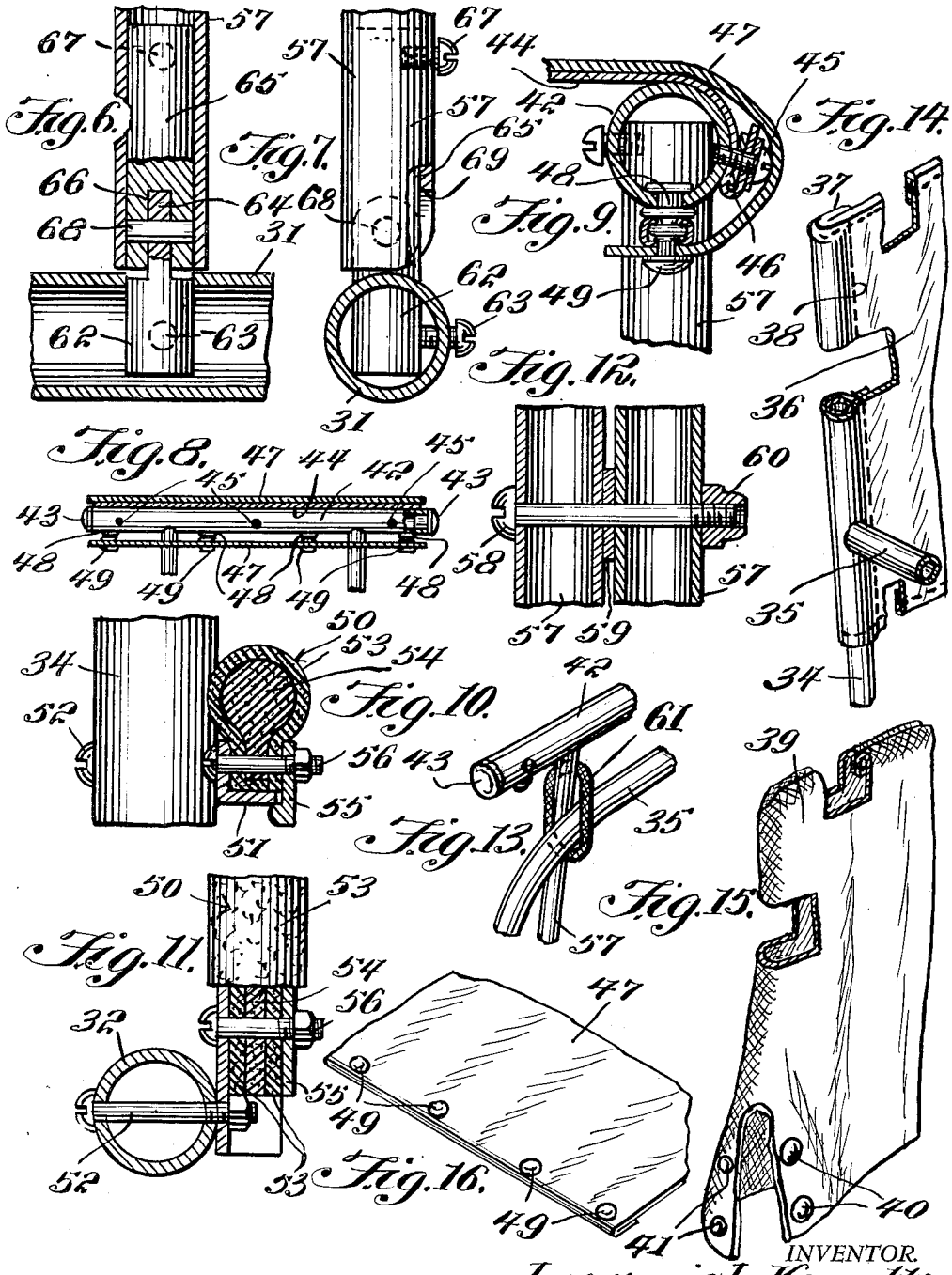
INVENTOR.
Louvenia L. Kundtz,
Theodore S. Kundtz,
BY Victor J. Evans & Co.

ATTORNEYS

Dec. 9, 1952 L. L. KUNDTZ ET AL 2,620,859

FOLDING CHAIR

Filed Aug. 16, 1950 2 SHEETS—SHEET 2



INVENTOR.
Lowenid L. Kundtz,
Theodore S. Kundtz,
BY Victor J. Evans & Co.

ATTORNEYS

Patented Dec. 9, 1952 2,620,859

UNITED STATES PATENT OFFICE

2,620,859

FOLDING CHAIR

Louvenia L. Kundtz and Theodore S. Kundtz,
Miami, Fla.

Application August 16, 1950, Serial No. 179,752

2 Claims. (Cl. 155—140)

1

This invention relates to an article of furniture, and more particularly to a collapsible rocking chair.

The object of the invention is to provide a collapsible or folding rocking chair which includes a flexible back and a flexible seat, the chair of the present invention being adapted to be readily folded into compact form for storage or shipment or unfolded when it is to be used.

Another object of the invention is to provide a folding rocking chair that is constructed so that it will not accidentally topple over backwards when being used, the chair being extremely comfortable in use and highly attractive in appearance.

A further object of the invention is to provide a folding chair which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, in which like numerals are used to designate like parts throughout the several views:

Figure 1 is a side elevational view of the rocking chair of the present invention;

Figure 2 is a front elevational view of the rocking chair of the present invention;

Figure 3 is a front elevational view of the chair of the present invention in folded or collapsed position;

Figure 4 is a fragmentary side elevational view of one of the side frame members;

Figure 5 is a fragmentary sectional view showing the hinge connection between one of the braces and the web of the frame member;

Figure 6 is a view taken at right angles to the view shown in Figure 5, with parts broken away and in section;

Figure 7 is a side elevational view of the hinge assembly of Figure 5 and Figure 6;

Figure 8 is an elevational view, with parts broken away and in section, showing the connection of the flexible or fabric seat to the crossbar;

Figure 9 is a sectional view showing the connection of the flexible seat and seat cover to the crossbar;

Figure 10 is a vertical sectional view showing the construction of one of the flexible support members;

Figure 11 is a sectional view taken at right angles to the view shown in Figure 10;

Figure 12 is a fragmentary sectional view showing the pivotal connection between the coacting braces;

2

Figure 13 is a fragmentary view showing the resilient member for connecting the braces to the side frame members;

Figure 14 is a fragmentary perspective view showing the permanent fabric back rest, with parts broken and in section;

Figure 15 is a fragmentary perspective view showing a portion of the removable cover for the back rest;

Figure 16 is a fragmentary perspective view of the removable seat cover.

Referring in detail to the drawings, the numeral 30 designates a vertically disposed, side frame member which may be fabricated of any suitable material, such as tubular metal. There are a pair of the side frame members 30, and since each has the same construction, only one will be described in detail. Each of the side frame members 30 comprises a lower web 31, Figure 1, and the web 31 has an arcuate shape so that when the user is supported by or seated in the chair, the user will be able to rock himself or herself back and forth to thereby provide a comfortable rocking chair. The side frame member 30 further includes a substantially vertically disposed leg 32 which is formed integrally with or extends upwardly from the front end of the web 31, and the rear portion of the web 31 is shaped to define a stop member 33, Figures 1 and 4. The stop member 33 will engage with the floor, as shown in Figure 4, in the event that the chair is rocking backwardly too much, so as to prevent the chair and occupant thereof from being tilted or toppled over backwards. The stop member 33 has its upper end terminating in a substantially vertically disposed standard or upright 34, while the upper end of the leg 32 terminates in a horizontally disposed arm rest 35. The arm rest 35 has its free end secured to the standard 34 in any suitable manner. The side frame members 30 are, or can be, moved toward each other, as shown in Figure 3, when the chair is not being used, so that the chair can be folded to occupy a minimum amount of space when it is to be stored or shipped.

Extending between the standards 34 and secured thereto is a flexible back rest 36, Figure 14. The back rest 36 may be fabricated of any suitable flexible material, such an canvas, and end portions 37 of the back rest 36 are wrapped around the standards 34 and a suitable line of stitching 38 serves to secure the end portions 37 to the main portion of the back rest 36. Thus, the back rest 36 is permanently connected to the standards 34. Arranged over the back rest 36 is a cover 39, Figure 15. The cover 39 is hollow

and is made of a suitable fabric. The cover 39 is highly attractive, and the cover 39 is so shaped or constructed that it can be readily lifted onto or off of the back rest 36. As shown in Figure 15, the cover 39 is provided with snap fasteners 40 and receivers 41, and the snap fasteners 40 and receivers 41 are adapted to be arranged in engagement with each other when the cover 39 is mounted on the back rest 36, so as to prevent the cover 39 from accidentally working loose from the back rest 36.

Arranged contiguous to the inner surface of each of the side frame members 30, and mounted for sliding movement therealong is a horizontally disposed crossbar 42, Figures 8 and 9. The crossbars 42 are hollow, and end pieces 43, Figure 2, serve to close the open ends of the crossbars 42. Extending between the pair of crossbars 42 is a flexible seat member 44, the seat member 44 being fabricated of any suitable material, such as canvas. For securing the ends of the seat member 44 to the crossbars 42, a plurality of suitable securing elements, such as bolts or screws 45, extend through a folded portion of the seat member 44, Figure 9, and into threaded engagement with the crossbars 42. A reinforcing strip 46 is interposed between the folds of the canvas seat 44. A suitable seat cover 47 is extended over or arranged over the seat member 44, and the seat cover 47 may be fabricated of any suitable attractive material. The seat cover 47 is detachably connected to the crossbars 42 by means of snap fasteners and receivers 48 and 49, the snap fasteners 48 being arranged along the bottom of the crossbars 42, while the receivers 49 are secured along the edges of the seat cover 47. By arranging the receivers 49 in engagement with the snap fasteners 48, the seat cover 47 can be detachably connected across the seat member 44, so that the seat cover 47 will not accidentally work loose.

Resilient support members 50, Figures 10 and 11, are provided for supporting the crossbars 42 when the chair is in extended position and when the chair is occupied, so that the support members 50 have sufficient resiliency to enable the occupant of the chair to be supported in great comfort. Each of the support members 50 includes a horizontally disposed angle iron 51 which extends between the standards 34 and the legs 32, and the angle iron 51 is secured to these last-named members by suitable bolt-and-nut assemblies 52. A rubber bumper 54 is supported by the angle iron 51, and a suitable rubber casing or cover 53 encloses or surrounds the rubber bumper 54, the casings 53 and 54 being maintained in their proper positions on the angle iron 51 by means of bolt-and-nut assemblies 56 which extend through the angle iron 51 and through a retaining strip 55. When the chair is in extended position and when a person is seated on the member 44, the crossbars 42 will be in the position shown in Figure 2, so that the crossbars 42 will be resting upon the support members 50, whereby a person will be able to sit with comfort.

Suitable braces 57 are provided, and the braces 57 are arranged in pairs in criss-cross relation, the braces 57 having their lower ends operatively or hingedly connected to the web 31, while the upper ends of the braces 57 are secured to the crossbars 42. As previously stated, the braces 57 are arranged in pairs, and these pairs of braces 57 are pivotally connected together by a bolt 58. The bolt 58 extends through suitable registering apertures in the pairs of braces 57, there being a washer 59 arranged between each pair of braces 57, Figure 12, and a nut 60 is arranged in threaded engagement with each of the bolts 58 for maintaining the parts in assembled relation. Suitable continuous rubber or resilient bands or members 61, Figure 13, are trained over the upper ends of the braces 57 and are also arranged in engagement with the legs 32, the rubber band 61 serving to help maintain the seat in its proper relation.

The hinge means for connecting the lower ends of the braces 57 to the web 31 is shown in detail in Figures 5, 6 and 7. This hinge means comprises a bushing 62 which is arranged in the web 31, and the bushing 62 is secured in place in the web by means of a suitable screw 63. Projecting from the bushing 62 or formed integrally therewith is an apertured ear 64, Figure 6. Arranged in the lower end of each of the braces 57 is a plug or stop piece 65, and the plug 65 is bifurcated or provided with a slot 66 for slidably receiving therein the apertured ear 64. The plug 65 is secured in the brace 57 by a suitable screw 67, and a pivot pin 68 serves to pivotally connect the plug 65 to the apertured ear 64. Also, the lower portion of each of the braces 57 is cut away, as at 69, so as to provide sufficient clearance for the ears 64 when the braces pivot.

From the foregoing it is apparent that a folding or collapsible rocking chair has been provided which, when in the position shown in Figures 1 and 2, will provide an extremely comfortable and attractive seat or rocking chair for a person. When the rocking chair is not being used, it can be readily folded to the position shown in Figure 3, and occupies a minimum amount of space. To fold or move the parts of the chair from the positions shown in Figures 1 and 2 to the position shown in Figure 3, it is only necessary to move the two frame members 30 toward each other and since the back rest and seat are made of flexible material, there will be no interference with this closing or collapsing of the chair. The arcuate portions of the webs 31 provide a rocking surface for the chair, and the stop member 33 serves to prevent the chair from accidentally toppling over backwards. Also, the back rest 36 provides a means for limiting opening movement of the side frame members 30 away from each other. Further, the chair of the present invention includes the support members 50 which are resilient, so that there will be provided a comfortable support for the occupant of the chair. Further, the back rest cover 39 and the seat cover 47 can be conveniently arranged on the chair so as to protect the parts of the chair and also provide a highly attractive rocking chair. Also, the construction of the hinge shown in Figures 5, 6 and 7 enables the chair to be readily moved into and out of its operative position.

We claim:

1. A folding chair comprising a pair of side frame members mounted for movement toward and away from each other, each of said side frame members being shaped to define an arcuate ground-engaging lower web, a vertically disposed leg projecting upwardly from the front end of said web, the rear portion of said web being shaped to define a stop member for preventing the chair from accidentally tipping over backwards, said stop member terminating in a vertically disposed standard, a horizontally disposed arm rest extending from the upper end of said leg and secured to said standard, a flexi-

ble back rest extending between said standards and secured thereto, a seat cover detachably arranged over said back rest, a horizontally disposed crossbar arranged contiguous to the inner surface of each of said side frame members, a flexible seat extending between said crossbars and connected thereto, a flexible seat cover arranged over said seat and detachably connected to said crossbars, a horizontally disposed seat support member arranged contiguous to the inner surface of each of said side members, each of said support members including an angle iron extending between said leg and standard and secured thereto, a rubber bumper supported on said angle iron and secured thereto, and braces arranged in criss-cross relation and extending between said crossbars and webs, and hinge means connecting the lower ends of said braces to said webs.

2. The apparatus as described in claim 1, wherein said hinge means comprises a bushing positioned in said web and secured thereto, an

apertured ear projecting from said bushing, and a bifurcated plug secured in said brace and pivotally connected to said ear.

LOUVENIA L. KUNDTZ.
THEODORE S. KUNDTZ.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,388,146	Scheibe	Aug. 16, 1921
1,905,830	Ericson	Apr. 25, 1933
2,403,558	Schoof	July 9, 1946
2,485,016	Rideout	Oct. 18, 1949
2,489,698	Brown	Nov. 29, 1949
2,507,165	Kreutzer	May 9, 1950

FOREIGN PATENTS

Number	Country	Date
351,277	France	May 3, 1905